

**Translation**

**PATENT COOPERATION TREATY**

PCT/FR2003/003439



**PCT**

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference DE1463-10704 CM	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/003439	International filing date ( <i>day/month/year</i> ) 20 novembre 2003 (20.11.2003)	Priority date ( <i>day/month/year</i> ) 21 novembre 2002 (21.11.2002)
International Patent Classification (IPC) or national classification and IPC E01C 19/10		
Applicant DEMETER TECHNOLOGIES		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>5</u> sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 16 juin 2004 (16.06.2004)	Date of completion of this report 02 March 2005 (02.03.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

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## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_ 1-32 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_ 1-27 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 09 February 2005 (09.02.2005)
- ☐ the drawings:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-27	YES
	Claims		NO
Inventive step (IS)	Claims	1-27	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-27	YES
	Claims		NO

## 2. Citations and explanations

Reference is made to the following document:

**D1:** FR-A-2 352 763 (STRABAG BAU AG) 23 December 1977  
(1977-12-23)

**D1**, which is considered to be the prior art closest to the subject matter of **claim 1**, describes (the references between parentheses apply to said document) a method for producing a coated granular road-building material (cf. in particular page 2, lines 24 to 38), using at least one organic binder and at least one mineral binder, wherein:

- at least two separate granular fractions are used, a first fraction, referred to as the coarse granular fraction, consisting of coarse and/or medium aggregates (cf. page 2, line 27), and a second fraction, referred to as the fine granular fraction, consisting of fine aggregates (cf. page 2, line 31: "sand");
- the aggregates of the coarse granular fraction are coated with the organic binder so as to form a first phase, referred to as the coarse organic phase (cf. page 2, lines 26 to 30);
- the aggregates of the fine granular fraction are mixed with the mineral binder, an amount of make-up water and, as binder additive, a bitumen emulsion,

- thereby forming a second phase, referred to as the fine mineral phase (cf. page 2, lines 31 to 33);
- the coarse organic phase and the fine mineral phase are mixed to obtain a material ready for spreading or storage (cf. page 2, lines 35 to 38).

Consequently, the subject matter of **claim 1** differs from this known method in that no organic or synthetic binder is added during the formation of the fine mineral phase.

The subject matter of **claim 1** is therefore **novel** (PCT Article 33(2)).

Furthermore, the **problem** that the present invention is intended to solve can be considered to be that of obtaining a granular road-building material with improved mechanical properties and, at the same time, reducing the amounts of organic binders required.

The **solution** to this problem, as proposed in **claim 1** of the present application, is considered to involve an inventive step (PCT Article 33(3)), since none of the documents cited in the international search report suggests preparing separately, then mixing, such a coarse organic phase and such a fine purely-mineral phase. Indeed, D1 states that adding organic binder to the mineral phase is necessary to the method described therein, which is intended to match the flexibility of the mineral phase to that of the organic phase, whereas in the present invention the intention is to fill the cavities of the coarse organic phase with the rigid hardened mortar conglomerates of the fine mineral phase. Said... .. conglomerates perform a structuring function in the same way as the aggregates of the coarse fraction, so that the material obtained has improved rigidity, load-bearing

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capacity and resistance to rutting. The flexibility, cohesion and fatigue strength of the material are provided by the organic film that binds the hardened mortar conglomerates and the aggregates of the coarse granular fraction.

**C**laims 2 to 27 are dependent on **c**laim 1 and thus also comply, as such, with the PCT requirements of novelty and inventive step.